Grade 12 Essential Mathematics (40S)

Midterm Practice Exam
Answer Key
GRADE 12 ESSENTIAL MATHEMATICS

Midterm Practice Exam
Answer Key

Name: ___________________________________
Student Number: ___________________________
Attending  □  Non-Attending  □
Phone Number: ____________________________
Address: __________________________________
________________________________________
________________________________________

Instructions

The midterm examination is based on Modules 1 to 4 of the Grade 12 Essential Mathematics course. It is worth 12.5% of your final mark in this course.

Time

You will have a maximum of 3.0 hours to complete the midterm examination.

Format

The format of the examination will be as follows:

Module 1: Home Finance 33 marks
Module 2: Geometry and Trigonometry 27 marks
Module 3: Business Finance 17 marks
Module 4: Probability 23 marks
Total 100 marks

(see over)
Instructions (continued)

Resources Provided
The following tables are provided at the end of this examination
- Amortization Table
- Manitoba Homeowner’s Insurance Rates ($500 deductible)
- Interest Rate Factor Table
- Local Improvement Costs for Property Tax Credits

Resources Required (Not Provided)
To complete this examination, you will need:
- pens/pencils (2 or 3 or each)
- blank paper
- scientific or graphing calculator
- Midterm Exam Resource Sheet (The Midterm Exam Resource Sheet must be handed in with the exam. You will receive your Midterm Exam Resource Sheet back from your tutor/marker with the next module that is submitted for marking.)

Notes
- show all calculations and formulas
- include units where appropriate
- use decimal places in your calculations and round the final answers to the correct number of decimal places
- clearly state your final answer
- diagrams may not be drawn to scale
Answer all questions to the best of your ability. Show all your work.

Module 1: Home Finance (33 marks)

1. Alec wants to purchase a home where the monthly mortgage payment would be $739. He has a gross monthly income of $4100. He also knows that the monthly property taxes would be $163 and the monthly heating costs would be around $119. (3 marks)
   a) Calculate the Gross Debt Service Ratio. (Module 1, Lesson 1)
      Answer:
      \[ \text{GDSR} = \frac{739 + 163 + 119}{4100} \times 100 = \frac{1021}{4100} \times 100 = 24.9\% \]
   
   b) Would the financial institution grant a mortgage in this case? (Module 1, Lesson 1)
      Answer:
      Yes, because the Gross Debt Service Ratio is less than 32%.

2. Haylee would like to purchase a condominium. Haylee has a gross annual income of $59,900. She has saved $19,000 for a down payment. Her financial institution has offered her a 3.5% interest rate on a mortgage amortized over 25 years. Haylee estimates her monthly property taxes will be $119 and her monthly heating costs will be $96. Condo fees are $450 per month.
   a) Use the chart to calculate the maximum price Haylee can pay for her condominium. (4 marks) (Module 1, Lesson 1)
      Answer:

      | Maximum Affordable Home Price |
      |-------------------------------|
      | Gross monthly household income | $ 4991.67 |
      | Multiply: (GDSR)              | 0.32      |
      | Total affordable household expenses | $ 1597.33 |
      | Subtract:                     |           |
      | Monthly property taxes        | $ 119.00  |
      | Monthly heating costs         | $ 96.00   |
      | One-half of condo/strata fees (if applicable) | $ 225.00 |
      | Monthly affordable mortgage payment | $ 1157.33 |
      | Divide: Interest factor (from Chart 1.1) | 0.00499 |
      | Amount of affordable mortgage | $231,930.53 |
      | Add: Cash down payment        | $ 19,000.00 |
      | Maximum affordable home price  | $250,930.53 |
b) The condominium manager tells Haylee that he will cover emergency repairs, but that she needs to maintain her condo with daily and preventative maintenance. Describe which tasks the manager will complete and which tasks Haylee must do. (2 marks) (Module 1, Lesson 4)

Answer:
The manager will repair faulty plumbing such as hot water tanks, toilets that don’t work properly, or taps that leak. The manager is also responsible for faulty doors and windows, worn out flooring, heating and air conditioning systems, as well as emergency repairs.

Haylee will be responsible for the general cleaning of her condo, changing light bulbs, as well as checking that windows and doors close properly. She will also have to check walls for cracks, and check that vents are clear, taps are not leaking, the toilet does not waste water, and other preventative measures. She needs to report any problems to the manager.

3. The Russell family owns a home with a Boeckh replacement value of $195,000. The home is located in Metro Winnipeg. The family chooses Standard homeowner’s insurance with a deductible of $200. (Module 1, Lesson 3)

a) What is the replacement value of a home based on? (1 mark)

Answer:
The replacement value of a home is the amount it would cost to replace the home with another house of equal value if it is burned to the ground.

b) Calculate the Russell family’s annual insurance premium. (2 marks)

Answer:
Standard insurance rate for $195000 in Metro Winnipeg = $678
Extra deductible (for $200) = 10% × $678 = $67.8
Insurance cost = $678 + $67.8 = $745.80

c) Explain the difference between Comprehensive homeowner’s insurance and Standard homeowner’s insurance. (2 marks)

Answer:
With Standard insurance, the contents are covered only for specified perils.
With Comprehensive insurance, the contents are covered for more perils.
Name: ____________________________________________

4. Chance has just purchased a new home for $360,000. The possession date is October 15th. Annual property taxes are $1989 and they are due on June 30th. Chance’s home insurance is renewed December 1 of each year. He has to increase his home insurance from $300 to $460 per year and pay the difference for the extra months. (Module 1, Lesson 1)

a) Calculate Chance’s home insurance adjustment. (3 marks)

Answer:

Insurance Increase = $460 – $300 = $160
Time period = October 15 – December 1 = 1.5 months

Adjustment = \( \frac{1.5}{12} \times 160 = $20 \)

b) Calculate Chance’s property tax adjustment. (2 marks)

Answer:

Tax adjustment = \( \frac{2.5}{12} \times 1989 = $414.38 \)

c) Calculate the land transfer tax. (4 marks)

Answer:

Amount under $30,000 = $30,000.
Tax on this amount = $0

Amount between $30,000 and $90,000 = $60,000.
Tax on this amount = 0.5% \times 60,000 = $300

Amount between $90,000 and $150,000 = $60,000.
Tax on this amount = 1.0% \times 60,000 = $600

Amount between $150,000 and $200,000 = $50,000.
Tax on this amount = 1.5% \times 50,000 = $750

Amount over $200,000 = $360,000 – $200,000 = $160,000.
Tax on this amount = 2.0% \times 160,000 = $3200

Total Land Transfer Tax = 0 + 300 + 600 + 750 + 3200
= $4850
5. Kade has purchased a home for $187,900. He makes a down payment of $21,000 and takes out a fixed-rate 25-year mortgage at 2.5% for the balance of the purchase price. (Module 1, Lesson 2)

a) Determine the monthly mortgage payments. (2 marks)

*Answer:*

Cost per $1000 at 2.5% for 25 years = 4.48 (from amortization table given)
Mortgage: $187,900 - $21,000 = $166,900

Monthly payment = \( \frac{166,900}{1000} \times 4.48 = 166.9 \times 4.48 = $747.71 \)

b) Calculate the total amount of interest that Kade will pay on his mortgage over 25 years. (2 marks)

*Answer:*

Total cost of mortgage = $747.71 \times 12 \times 25 = $224,313.00
Interest = $224,313.00 - $166,900.00 = $57,413.00

c) Calculate the interest on the unpaid balance for the first month. (1 mark)

*Answer:*

$166,900 \times 0.025 = $4172.50 annually
$4172.50 \div 12 = $347.71 monthly

d) Complete a schedule of mortgage payments for Kade for the first month. (3 marks)

*Answer:*

<table>
<thead>
<tr>
<th>Payment #</th>
<th>Payment</th>
<th>Interest</th>
<th>Principal</th>
<th>Unpaid Balance</th>
<th>Owner’s Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$747.71</td>
<td>$347.71</td>
<td>$400.00</td>
<td>$166,500.00</td>
<td>$21,400.00</td>
</tr>
</tbody>
</table>

6. List one benefit of renting an apartment and one benefit of buying a house or condo. (2 marks) (Module 1, Lesson 5)

*Answer:*

- A benefit of renting an apartment is that you are not responsible for the repairs and maintenance costs. Or, you could say a benefit is that you do not need a large sum of cash to put toward a down payment.
- A benefit of buying a house or condo is that you make monthly payments that increase your equity, which results in you eventually having an asset you own. Or, you could say a benefit of buying is that you are in control of decisions about possible renovations or house improvements.
Module 2: Geometry and Trigonometry (27 marks)

1. Find the missing measures indicated.
   
a) Find side $a$. (3 marks) (Module 2, Lesson 5)

\[ \angle C = 180^\circ - 39^\circ - 41^\circ = 100^\circ \]

\[ \frac{a}{\sin 41^\circ} = \frac{9}{\sin 100^\circ} \]

\[ a = \frac{9 \times \sin 41^\circ}{\sin 100^\circ} \approx 5.995 \]
b) Find side \(a\), and angle \(\angle B\). (3 marks) (Module 2, Lesson 6)

\[
\begin{align*}
\text{Answer:} \\
& a^2 = 8^2 + 10^2 - 2 \times 8 \times 10 \cos 61^\circ \\
& a^2 = 64 + 100 - 77.57 \\
& a^2 = 86.43 \\
& a = 9.3 \\
& \frac{\sin \angle B}{10} = \frac{\sin 61^\circ}{9.3} \\
& \sin \angle B = 0.940 \\
& \angle B = 70.1^\circ
\end{align*}
\]
2. Two ropes are being used to raise a heavy object from the bottom of a lake. The heavy object (point C) is between points A and B. How far is the heavy object below the surface of the water if the distance between A and B is 6 metres? Round your answer to one decimal place. (5 marks) (Module 2, Lesson 5)

Answer:
In \( \triangle ABC \):
\[
C = 180^\circ - 77^\circ - 68^\circ = 35^\circ
\]
\[
b = \frac{6 \sin 68^\circ}{\sin 35^\circ} = 9.70 \text{ m}
\]

In \( \triangle ACD \):
\[
\sin 77^\circ = \frac{CD}{9.70}
\]
\[
CD = 9.70 \sin 77^\circ = 9.45 \text{ m}
\]
Depth = 9.5 m.
3. Find the measures in the following parallelogram ABCD. (4 marks) (Module 2, Lesson 3)

Given: \( \angle DAB = 35^\circ \)
\[
\text{segment } \overline{DE} = 4 \text{ cm}
\text{segment } \overline{CE} = 1.5 \text{ times segment } \overline{BE}
\]

Find:

a) \( \angle ADC \)
   
   \text{Answer:} 145^\circ

b) \( \angle DCB \)
   
   \text{Answer:} 35^\circ

c) Diagonal length DB
   
   \text{Answer:} 8

d) Diagonal length AC
   
   \text{Answer:} 12

4. Describe when the Sine Law may be useful in a construction, industrial, commercial, or artistic application. (2 marks) (Module 2, Lesson 6)

   \text{Answer:}

   When given specifications that involve measures of a non-right angle for applications such as designing a garden or a window, the Sine Law would be used to calculate the measures of sides or angles when one side and its opposite angle are known.
5. a) ABCD is a rhombus. Find x and y. (2 marks) (Module 2, Lesson 2)

\[ 2x + 12 = 5x \]
\[ 12 = 3x \]
\[ 4 = x \text{ and } \]
\[ 12 = y \text{ (all sides same for rhombus)} \]

**Answer:**

b) QRST and RSUV are parallelograms. State why \( QT \) is the same length as VU. (2 marks) (Module 2, Lesson 2)

**Answer:**

QRST is a parallelogram; therefore, \( QT \) is parallel and equal to \( RS \).
RSUV is a parallelogram; therefore, \( RS \) is parallel and equal to \( VU \).
Therefore, \( QT \) is parallel and equal to \( VU \).
6. a) State the definition of an equilateral triangle. (1 mark) (Module 2, Lesson 4)

*Answer:*

**Equilateral triangles** have three equal sides and three equal angles.

b) Are all equilateral triangles regular polygons? (1 mark)

*Answer:*

Yes, because all angles are equal and all sides are equal.

7. Consider an octagon. (Module 2, Lesson 4)

a) A polygon can be divided into a series of triangular regions by drawing diagonals from one of the vertices. How many triangular regions can be drawn inside an octagon? (1 mark)

*Answer:*

Number of triangular regions = number of sides – 2
For an octagon, number of triangles = 8 – 2 = 6

b) What is the sum of the interior angles of an octagon? (1 mark)

*Answer:*

Sum = # of triangles × 180° = 6 × 180° = 1080°.

c) What is the sum of the interior angles of a nonagon? A nonagon has nine sides. (1 mark)

*Answer:*

A nonagon has one more triangular region than an octagon. Therefore, 1080° + 180° = 1260° = sum of angles in a nonagon.

d) Is it possible for the sum of the interior angles of a polygon to be 1980°? How do you know? (1 mark)

*Answer:*

Any polygon can be drawn as a series of triangular regions.

\[
\frac{1980°}{180°} = 11 \text{ triangular regions}
\]

Therefore, the sum of the interior angles of a polygon can equal 1980°.
Module 3: Business Finance (17 marks)

1. State two possible advantages of working in a larger business rather than in a small business. (2 marks) (Module 3, Lesson 1)

   **Answer:**

   Answers may vary. Answers may include something similar to the following:
   - Small businesses normally have one manager in charge of decision making, while larger companies may have department managers and supervisors. Therefore, in a larger company you can discuss ideas before making a decision.
   - Small businesses may have one person completing many tasks and having many responsibilities while larger businesses typically have one employee doing one job. Therefore, if you enjoy focusing on only one job, working for a large business would be an advantage.
   - Larger businesses may have benefits available to employees while small businesses often do not.

2. Leah is trying to determine which small business idea is most feasible in her community as a way to earn money in the summer. Her community is a small town in northern Manitoba with 100 people. Leah is considering the two businesses below and she has asked your advice. Is each of the following two businesses feasible in the community? Explain your answer for both businesses. (2 marks) (Module 3, Lesson 1)

   a) **Lawn Care**

   **Answer:**

   You may state that the business is either feasible or it is not feasible. The advice given must be justified with an appropriate statement.

   **Lawn Care:** This business may be feasible because Leah already owns the equipment required for the job and there are many elderly people in the community who cannot do the lawn care themselves. OR

   This business may not be feasible because most residents in the community let their land grow wild, so little care is needed.

   b) **Sports Equipment Rental**

   **Answer:**

   **Sports Equipment Rental:** This business may be feasible because visitors often come to the community and need fishing or boating equipment. You have an excess of the required equipment. OR

   This business may not be feasible because it would cost too much to purchase the equipment that you would rent out.
3. Identify three expenses that you may have when operating a small business. You may identify business expenses or capital expenses. (3 marks) (Module 3, Lesson 1)

   Answer:

   Answers given may be specific or general. Some possible expenses include: cost of purchasing equipment, the interest on a loan to buy equipment, cost of advertising, cost of a computer for the office, cost of supplies, and cost of a business license.

4. A business plans to produce 600 calendars and sell them for $13 each. The unit cost is $7 per calendar. How many calendars must be sold for the company to reach the break-even point? (1 mark) (Module 3, Lesson 2)

   Answer:

   \[
   \text{Break-even point} = \frac{600 \times 7}{13} = 323.07 \text{ calendars}
   \]

5. Hillary plans to make and sell 200 pairs of earrings. The cost for the metal required to make the earrings is $2050. (Module 3, Lesson 2)

   a) Will Hillary make a profit if she charges $15.00 per pair of earrings? Justify your answer. (1 mark)

   Answer:

   \[200 \times 15 = 3000\; \text{dollars}; \text{ since 3000 is more than 2050, she will make a profit.}\]

   b) Will Hillary make a profit if she charges $9.00 per pair of earrings? Justify your answer. (1 mark)

   Answer:

   \[200 \times 9 = 1800\; \text{dollars}; \text{ since 1800 is less than 2050, she will lose money.}\]

   c) How much must Hillary charge to break even? (1 mark)

   Answer:

   \[\text{Break-even point} = 2050 \div 200 = 10.25\]

   She needs to charge $10.25 per pair of earrings to break even.
6. For a summer job, Curtis runs an exterior window cleaning business. His business expenses each week are for soap at $13.44, cloths at $11.20, and gas at $170. He also has a weekly expense of $70.20 for a loan he needed to buy ladders. He works 5 days each week and cleans the windows of 4 houses each day. Curtis charges $45 per house.
   (Module 3, Lesson 2)
   a) Calculate Curtis’s weekly profit. (2 marks)
   Answer:
   Revenue: 45 \times 4 \times 5 = 900
   Expenses: 13.44 + 11.20 + 170.00 + 70.20 = 264.84
   Profit: 900.00 – 264.84 = $635.16
   b) Describe one thing Curtis might consider doing to increase the profit. (1 mark)
   Answer:
   Increase revenue by charging more money per house, cleaning more houses each week
   Or
   Decrease expenses by buying cheaper supplies, paying off loan sooner

7. List the four sections of the T1 General income tax return. (2 marks) (Module 3, Lesson 3)
   Answer:
   Identification, Total Income, Net Income and Taxable Income, Refund or Balance Owing

8. Which of the following expenses can be claimed only under business expenses and not under personal expenses? Circle the best answer. (1 mark) (Module 3, Lesson 3)
   a) telephone and utilities
   b) child care costs
   c) medical costs
   d) tuition fees
   Answer:
   The correct answer is (a). Telephone and utilities can be claimed for a business but not for personal use.
Module 4: Probability (23 marks)

1. In a class of 32 students where they each take one option, 18 students take an Art option, 10 other students take a Drama option, and the rest of the students take a Choir option. One student is selected at random. Find the following: (4 marks) (Module 4, Lesson 2)

   a) the odds in favour of the selected student taking Drama

      Answer:
      Odds in favour of Drama = 10:22 or 5:11

   b) the odds against the selected student taking Choir

      Answer:
      Odds against Choir = 28:4 or 7:1

   c) the odds in favour of the selected student either taking Art or Choir

      Answer:
      Odds in favour of Art or Choir = (18 + 4):10 = 22:10 or 11:5

   d) the probability of the selected student either taking Art or Choir

      Answer:
      \[ P(\text{Art or Choir}) = \frac{22}{32} \text{ or } \frac{11}{16} \]

2. The odds against a spring flood in Winnipeg are 6:7. (2 marks) (Module 4, Lesson 2)

   a) What are the odds in favour of a spring flood in Winnipeg?

      Answer:
      Odds in favour = 7:6

   b) What is the probability of a spring flood in Winnipeg?

      Answer:
      \[ P(\text{Flood}) = \frac{7}{7+6} = \frac{7}{13} \]
3. Keira studied how often Friday the 13th occurs. The following chart indicates her data showing how often the 13th day of the month falls on each of the seven days of the week. (6 marks)

<table>
<thead>
<tr>
<th>Days of the Week</th>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>T</th>
<th>F</th>
<th>Sa</th>
</tr>
</thead>
<tbody>
<tr>
<td>How Often the 13th Day Occurs</td>
<td>687</td>
<td>685</td>
<td>685</td>
<td>687</td>
<td>684</td>
<td>688</td>
<td>684</td>
</tr>
</tbody>
</table>

a) Find the probability that the 13th day of the month occurs on a Friday. Express this probability as a percent, decimal (rounded to two decimal places), and a fraction. (2 marks) (Module 4, Lesson 1)

Answer:

\[ P(\text{Friday}) = \frac{688}{687 + 685 + 685 + 687 + 684 + 688 + 684} \]

\[ P(\text{Friday}) = \frac{688}{4800} = 14.33\% = 0.14 \]

b) Find the probability that the 13th day of the month does not occur on a Friday. Express this probability as a percent. (2 marks) (Module 4, Lesson 1)

Answer:

\[ P(\text{Not Friday}) = \frac{4800 - 688}{4800} = \frac{4112}{4800} = 85.67\% \]

c) Is this an example of theoretical probability or experimental probability? Explain. (2 marks) (Module 4, Lesson 4)

Answer:

This is an example of experimental probability because Keira gathered data and the probability/conclusions are based on this data.
4. State an example of a situation where you would use the following type of probability to predict an outcome or make a decision: *(3 marks)* (Module 4, Lesson 4)

   a) Theoretical probability
   
   *Answer:*
   
   Answers will vary. Answers must contain an example in an IDEAL situation, such as rolling a “one” (die) or flipping “heads” (coin), or calculating expected value in a game of chance.

   b) Experimental probability
   
   *Answer:*
   
   Answers will vary. Answers must be based on data from a survey or EXPERIMENT to determine the number of students in the cafeteria who prefer cheese pizza, or the likelihood of having a car accident during a snowstorm.

   c) Subjective probability
   
   *Answer:*
   
   Answers will vary. Answers cannot be based on calculations. Answers must contain an instance of BIAS/OPINION. For example, someone may say that seatbelts are unsafe because they know of someone who was injured by a seatbelt.

5. An expert is to make a decision about the safety of the design of a vehicle. What kind of probability will be used as a basis for the decision? Explain. *(2 marks)* (Module 4, Lesson 4)

   *Answer:*
   
   The expert will use experimental probability. Several cars will need to be crash tested to create data to determine the vehicle safety. The theoretical probability cannot be determined exactly, even when many experiments are conducted.
6. Consider the following game. It costs $5 each time you draw a card from a shuffled standard deck. If you draw an ace, you win $50. If you draw a king, you win $25. If you draw any other card, you receive nothing. An expected value chart is included in this question. Use it only if you find it helpful. (Module 4, Lesson 3)

a) Determine your expected value of the game. (4 marks)

Answer:

<table>
<thead>
<tr>
<th>Event</th>
<th>Probability</th>
<th>Amount Won</th>
<th>Cost of Playing</th>
<th>Payoff</th>
<th>Probability x Payoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ace</td>
<td>( \frac{4}{52} )</td>
<td>$50</td>
<td>$5</td>
<td>$45</td>
<td>$3.46</td>
</tr>
<tr>
<td>King</td>
<td>( \frac{4}{52} )</td>
<td>$25</td>
<td>$5</td>
<td>$20</td>
<td>$1.54</td>
</tr>
<tr>
<td>Other Card</td>
<td>( \frac{44}{52} )</td>
<td>$0</td>
<td>$5</td>
<td>$-5</td>
<td>$-4.23</td>
</tr>
</tbody>
</table>

Expected value: $3.46 + $1.54 – $4.23 = $0.77

b) If you play this game 15 times, how much money can you expect to gain or lose? (1 mark)

Answer:

Expected gain = 15 \times ($0.77) = $11.55
You can expect to gain $11.55.

c) Is this a fair game? Explain why or why not. (1 mark)

Answer:

This game isn’t fair. Fair games have an expected value of 0. Even though you are more likely to win some money, this game isn’t fair for the company/people giving out the money.
### Amortization Table

**Amortization Period of Mortgage Loan**  
(Blended payment of principal and interest per $1,000 of loan)

<table>
<thead>
<tr>
<th>Interest Rate</th>
<th>5 years</th>
<th>10 years</th>
<th>15 years</th>
<th>20 years</th>
<th>25 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.50%</td>
<td>$17.31</td>
<td>$8.98</td>
<td>$6.21</td>
<td>$4.82</td>
<td>$4.00</td>
</tr>
<tr>
<td>1.75%</td>
<td>17.42</td>
<td>9.09</td>
<td>6.32</td>
<td>5.05</td>
<td>4.11</td>
</tr>
<tr>
<td>2.00%</td>
<td>17.52</td>
<td>9.20</td>
<td>6.43</td>
<td>5.05</td>
<td>4.23</td>
</tr>
<tr>
<td>2.25%</td>
<td>17.63</td>
<td>9.31</td>
<td>6.55</td>
<td>5.17</td>
<td>4.36</td>
</tr>
<tr>
<td>2.50%</td>
<td>17.74</td>
<td>9.42</td>
<td>6.66</td>
<td>5.29</td>
<td>4.48</td>
</tr>
<tr>
<td>2.75%</td>
<td>17.85</td>
<td>9.53</td>
<td>6.78</td>
<td>5.41</td>
<td>4.61</td>
</tr>
<tr>
<td>3.00%</td>
<td>17.96</td>
<td>9.65</td>
<td>6.90</td>
<td>5.54</td>
<td>4.73</td>
</tr>
<tr>
<td>3.25%</td>
<td>18.07</td>
<td>9.76</td>
<td>7.02</td>
<td>5.66</td>
<td>4.86</td>
</tr>
<tr>
<td>3.50%</td>
<td>18.18</td>
<td>9.88</td>
<td>7.14</td>
<td>5.79</td>
<td>4.99</td>
</tr>
<tr>
<td>3.75%</td>
<td>18.29</td>
<td>9.99</td>
<td>7.26</td>
<td>5.91</td>
<td>5.13</td>
</tr>
<tr>
<td>4.00%</td>
<td>18.40</td>
<td>10.11</td>
<td>7.38</td>
<td>6.04</td>
<td>5.26</td>
</tr>
<tr>
<td>4.25%</td>
<td>18.51</td>
<td>10.23</td>
<td>7.50</td>
<td>6.17</td>
<td>5.40</td>
</tr>
<tr>
<td>4.50%</td>
<td>18.62</td>
<td>10.34</td>
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*Interest compounded semi-annually. Actual payment amount may differ slightly.
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Additional Amounts per $1000 coverage: Add: $3.15 Add: $3.50 Add: $2.75 Add: $3.03 Add: $3.55 Add: $3.91 Add: $4.72 Add: $5.19

$200 deductible—Increase premium by 10%
### Chart 1.1
**Interest Rate Factor Table**
**Based on 25-Year Amortization**

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## Local Improvement Costs for Property Tax Credits

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<td>Land drainage system</td>
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Source: [http://winnipeg.ca/publicworks/Services/LocalImprovements.asp](http://winnipeg.ca/publicworks/Services/LocalImprovements.asp)